

**IN THE SPECIFICATION**

Please amend the specification as follows:

*On page 5, please replace the relevant paragraph with the following corresponding replacement paragraph:*

In further embodiments, a modified blood clotting factor has a proteolytic cleavage site including a plurality of basic amino acid sequences or a viral amino acid sequence cleavage site, such as a retroviral protein (e.g., envelope protein). In particular embodiments, a proteolytic cleavage site comprises an Arg-Lys-Arg (SEQ ID NO:3), Arg-Lys-Arg-Arg-Lys-Arg (SEQ ID NO:1) or an PRPSRKRR (SEQ ID NO:2) sequence.

*On page 8, please replace the relevant paragraph with the following corresponding replacement paragraph:*

**Figures 1A-1D** show three exemplary modified FVII constructs used to generate stable HEK293 cell lines. Short proteolytic cleavage sequences were inserted at position 152 of FVII: **(A)** wild type FVII; **(B)** FVII-RKR (SEQ ID NO:3); **(C)** FVII-RKRRKR (FVII-2xRKR) (SEQ ID NO:1); and **(D)** FVII-PRPSRKRR (FVII-INS) (SEQ ID NO:2).

*On page 15, please replace the relevant paragraph with the following corresponding replacement paragraph:*

The modified blood clotting factors of the invention can be engineered to include any proteolytic cleavage site recognized by an intracellular protease so that the secreted protein has been cleaved. Amino acid sequences recognized by intracellular proteases located in the endoplasmic reticulum-golgi transport pathway are known in the art and include PACE/furin sites. In addition, stretches of basic amino residues are known to be cleaved by intracellular proteases. Other proteolytic cleavage sites include those present on virus proteins, which often utilize cellular proteases for processing. For example, retroviral envelope and gag proteins are cleaved by intracellular proteases and the cleavage/recognition sequences in these proteins can be used in producing the modified blood clotting factors of the invention. Exemplary proteolytic cleavage recognition sites are RKR (SEQ ID NO: 3), RKRRKR (SEQ ID NO:1) and

PRPSRKRR (SEQ ID NO:2), which is derived from the C-terminus of the a-chain of the human insulin receptor. Additional protein cleavage/recognition sites can be identified by sequencing the site of cleavage on a cleaved/secreted protein and determining whether recombinantly introducing the site into a different protein targeted for secretion mediates cleavage of the protein at the site.

*On page 36, please replace the relevant paragraph with the following corresponding replacement paragraph:*

A PCR-based mutagenesis protocol was used to generate 3 FVIIa constructs, as shown in Fig. 1. The amino acid inserts are: Arg-Lys-Arg (RKR) (SEQ ID NO: 3), Arg-Lys-Arg-Arg-Lys-Arg (RKRRKR or 2xRKR for short) (SEQ ID NO: 1) and Pro-Arg-Pro-Ser-Arg-Lys-Arg-Arg (PRPSRKRR, or INS for short) (SEQ ID NO: 2).